AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A channel estimation method for wireless local area network (WLAN) systems, which comprises the steps of:

(a) receiving a preamble message of a spread spectrum signal that ~~contains a series~~with a sequence and ~~dispreading~~despreading the preamble message into a plurality of symbol signals, each of the symbol signals containing a plurality of discrete signals;

(b) determining a peak sign assignment for each of the symbol signals;

(c) establishing a plurality of data windows for each symbol signal using the discrete signal of any starting point;

(d) multiplying a discrete value associated with each of the discrete signals of each data window by the peak sign assignment associated with the data window, and accumulating and temporarily storing the product to a first data frame;

(e) repeating step (d) for each of the following discrete signals, accumulating and temporarily storing the ~~results~~ products to a second data ~~frame, a third data frame, ..., and~~through ~~the~~ Nth data frame;

(f) computing the accumulated ~~values~~ products in the data frames and determining a data frame with the maximum accumulation; and

(g) computing a channel signal according to the data frame with the maximum accumulation.

2. (Original) The method of claim 1, wherein each symbol signal contains two orthogonal modulated components (Corr_I, Corr_Q).

3. (Currently Amended) A channel estimation method for wireless local area network (WLAN) systems, which comprises the steps of:

(a) receiving a preamble message of a spread spectrum signal that ~~contains a series~~with a sequence and ~~dispreading~~despreading the preamble message into a plurality of symbol signals, each of the symbol signals containing a plurality of discrete signals;

(b) determining a peak sign assignment for each of the symbol signals;

(c) establishing a plurality of data windows for each symbol signal using the discrete signal of any starting point;

(d) multiplying a discrete value associated with each of the discrete signals of each data window by the peak sign assignment associated with the data window, and accumulating and temporarily storing the product to a first data frame;

(e) repeating step (d) for each of the following discrete signals, removing repeated operations in each accumulation ~~by equating the result to the previously computed one~~, accumulating and temporarily storing the ~~results~~products to a second data through ~~frame, a third data frame, ..., and the~~ Nth data frame;

(f) computing the ~~accumulated values~~accumulated products in the data frames and determining a data frame with the maximum accumulation; and

(g) computing a channel signal according to the data frame with the maximum accumulation.

4. (Original) The method of claim 3, wherein each symbol signal contains two orthogonal modulated components (Corr_I, Corr_Q).

5. (Currently Amended) A channel estimation system for wireless local area network (WLAN) systems, which comprises:

a despreader, which receives a preamble message of a spread spectrum signal that ~~contains a series~~with a sequence and ~~dispreads~~ despreads the preamble message into a plurality of symbol signals, each of the symbol signals containing a plurality of discrete signals;

a peak detector, which determines a peak sign assignment for each of the symbol signals;

a data window operating unit, which multiplies a discrete value associated with each of the discrete signals of each data window by the peak sign assignment associated with the data window and accumulates and temporarily stores the product to a first data frame; and

a data frame operating unit, which sends each of the following discrete signals to the data window operating unit, accumulates and temporarily stores the ~~results~~products to a second data throughframe, ~~a third data frame, …, and the~~ Nth data frame;

wherein the ~~accumulated values~~accumulated products in the data frames are computed to determine a data frame with the maximum accumulation according to which a channel signal is computed.

6. (Original) The system of claim 5, wherein each symbol signal contains two orthogonal modulated components (Corr_I, Corr_Q).

7. (Original) The system of claim 5 further comprising a divider to process divisions according to the preamble message.

8. (Currently Amended) The system of claim 7, wherein the signals after division processing are used to estimate ~~the~~ a channel signal according to a predetermined channel impulse response.